

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/673,750 10/20/00 SATO

J 01165.0798

EXAMINER

MM91/0509

FINNEGAN HENDERSON FARABOW
GARRETT & DUNNER
1300 I STREET NW
WASHINGTON DC 20005-3315

GONZALEZ, J

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

05/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/673,750

Applicant(s)

SATO ET AL.

Examiner

Julio C. Gonzalez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15 and 17-28 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, applicant discloses that the metal plating has a thickness of "at least 10 μm " and in claim 9 that the plating has a thickness in the range of 0.5 μm to 2.0 μm and in claim 10 a thickness of "at least" 3 μm . How can the thickness be "at least" 10 μm if it is also in a smaller range?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7, 8, 11, 13, 15, 17-23, 25, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al in view of Teshima et al and Zolla.

Art Unit: 2834

Takagi et al discloses a rotor comprising a magnet 17 having rotation axis and a shaft 15 fixed to the magnet said shaft including a portion fitted in through hole (see figure 1) and reinforcing means inside the hole for ensuring a fixing force to hold shaft.

However Takagi et al does not disclose that the magnet has a coating which is an electroless plating.

On the other hand, Teshima et al discloses for the purpose of improving the reliability of the device and prevents rust in the motor core that a reinforcing mean is made of metal electroless plating.

However neither Takagi or Teshima disclose the type of the electroless material.

On the other hand Zolla discloses for the purpose of increasing the resistance to corrosion of an easily corroded metallic support that the electroless plating can be made of Ni-P, Ni-P-W, NI-B, Ni material.

It would have been obvious to one having ordinary skill in the art to design a rotor with a shaft and a magnet as disclosed by Takagi et al and to include coating means for the purpose of improving the reliability of the device and prevent rust in the motor core as disclosed by Teshima et al and to include Ni-P and Ni-B electroless plating for the purpose of increasing the resistance to corrosion of an easily corroded metallic support as disclosed by Zolla.

5. Claims 14, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al in view of Teshima et al, Zolla and Sato.

Takagi et al discloses a rotor comprising a magnet 17 having rotation axis and a shaft 15 fixed to the magnet said shaft including a portion fitted in through hole (see figure 1) and reinforcing means inside the hole for ensuring a fixing force to hold shaft.

However Takagi et al does not disclose that the magnet has a coating which is an electroless plating.

On the other hand, Teshima et al discloses for the purpose of improving the reliability of the device and prevents rust in the motor core that a reinforcing mean is made of metal electroless plating.

However neither Takagi or Teshima disclose the type of the electroless material.

On the other hand Zolla discloses for the purpose of increasing the resistance to corrosion of an easily corroded metallic support that the electroless plating can be made of Ni-P, Ni-P-W, NI-B, Ni material.

However neither Takagi, Teshima or Zolla disclose that the bond material is vacuum-impregnated.

On the other hand Sato discloses for the purpose to efficiently manufacture various kinds of bonded magnets with different magnetic characteristics that the bonded magnet is vacuum-impregnated.

It would have been obvious to one having ordinary skill in the art to design a rotor with a shaft and a magnet as disclosed by Takagi et al and to include coating means for the purpose of improving the reliability of the device and prevent rust in the motor core as

Art Unit: 2834

disclosed by Teshima et al and to include Ni-P and Ni-B electroless plating for the purpose of increasing the resistance to corrosion of an easily corroded metallic support as disclosed by Zolla and to use vacuum-impregnated method for the purpose to efficiently manufacture various kinds of bonded magnets with different magnetic characteristics as disclosed by Sato .

6. Claims 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al, Teshima et al, Zolla in view of ordinary skill in the art.

Takagi, Teshima and Zolla disclose the invention claimed except for the ranges being disclosed for the electroplating coating.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to come with those optimum ranges that the applicant discloses, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Allowable Subject Matter

7. Claims 12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

May 1, 2001


ELVIN ENAD
PRIMARY EXAMINER
By 28311
5/4/01